The 50 MHz DX Bulletin

Volume 5, Issue 12 **December 1994** **ISSN 1073-1024**

The 50 MHz DX Bulletin was founded by Harry Schools KA3B. It is dedicated to the understanding and utilization of long distance propagation in the 6-meter Amateur band. The current editor and publisher is Victor Frank, K6FV. Subscription rates are $20 U.S. third class mail, $25 U.S./Canada/Mexico airmail, $25 by surface and $30 by airmail elsewhere for 12 issues. Circulation matters and DX reports should be sent to 12450 Skyline Blvd., Woodside, CA 94062-4541 USA. My Internet address is frank@sneezy.sri.com. The bulletin may be freely quoted, provided that credit is given.

More 50 MHz DX "Down South"

Early Es Season in Northern Hemisphere

Six meters was hopping in October and November 1994. Transequatorial propagation was observed between Japan and Australia/New Zealand and between South America and Central/North America. We even have some reports of African 6m activity. Six meter aficionados who kept the faith were treated to more than the usual number of fall Sporadic-E openings in the northern hemisphere. We also have reports of Sporadic-E from the southern hemisphere, where their summer Es season is now in full bloom.

Last month, in another case of mislocation by your editor, I placed CT3EX in Europe (Portugal). CT3 is Madeira Is. in zone 33 off the coast of Africa, about 1000 km short of Europe. Thus our opening paragraph in last month's bulletin should have been "Northern Africa to South America this late in the solar cycle?" I asked Nestor, LW5EJU, for more information as to how he judged which propagation mode was involved with the various contacts which we listed last month. I sent along Spanish translations of my letter from two different programs, **Spanish Assistant** and **Power Translator.** Here is his reply:

Estimado Victor R. Frank, Le agradezco su carta y el envio del Boletín de Octubre de 1994.

El traductor "Spanish Assistant Translation" es muy bueno, pero el "Power Translator Translation" lo supera ampliamente al primero por la buena gramática y compenetración de texto. Cuando compre mi computador no dudaré en pedirle una copia de el o los diskettes.

Disculpeme por no haber sido más extenso en comentarios en los informes de actividad en 50 MHz, es que no me encuentro en condiciones de escribir en Inglés y una carta en Español se puede extender mucho, como para su comodidad.

La mayor parte de lo anotado en los informes son, contactos por condiciones Transecuatoriales (T.E.). El tipo de fading, con distorsión en la modulación de forma rápida y continua, gran dispersión de la señal y especialmente por el horario nocturno, extendiendose hasta las primeras horas del día siguiente; Me llevan a pensar en ese tipo de condiciones (Especialmente por los beacons).

Para los contactos anotados como (E2); ejemplo: W7RV, (21hrs30' (GMT), 18hrs30' (LUT)), Las señales heran fuertes, sin distorsión, (la señal hera fuerte y hacia un solo punto del horizonte) y algo muy notable, mientras yo escuchaba fuerte a W7RV (DM43).

Otra estación (LU) 30 km al sur de (donde yo me encuentro) or (donde yo vivo), me comentaba: " que no escuchaba a nadie. "

Conclusión: es posible que fuese E multiple salto o alguna capa ionizada entre la E y la F2 o F1.

Sobre el mismo tema de (E2) otro ejemplo: Día 27 / 10 / 94" P43C ",(QTR (GMT) 23hrs10', (LUT) 20hrs10'), las señales heran fuertes (todo igual que las condiciones de W7RV). Repentinamente se cortan las condiciones de propagación (Pierdo las señales de P43C en plenos comentarios) de 9+20 a nada en pocos segundos. El mismo día (QTR (GMT) 23hrs48', (LUT) 20hrs48') escucho nuevamente a P43C" con buenas señales "pero con un fading típico de Transecuatorial. Fue un cambio de condiciones en las capas ionizadas?

Para (X) por lo general son contactos con estaciones de zona de silencio, a media tarde, apuntando la antena hacia zonas de propagación fuerte por" E esporádica ",(como fuente de dispersión hacia atrás de las señales en elle reflejados).

Ejemplo = Día 15 / 10 / 94 (Ver la lista). Se evidenciaba también ese día en ese momento" E esporádica "(no fue anotado en el listado) pero se escuchaba también en 50.760 MHz. "Muy Fuerte" una Radio de FM (Radiodifusora de Sergipe) de "El Salbador, Brasil", no se por que en esa frecuencia? Posiblemente por mal funcionamiento de su equipo en el doble de su frecuencia 101.520 MHz.

Disculpe Victor por la referencia de ExE, para CT3EX is Multiple-hop sporadic E. Para (E) es para contactos por "Sporadic E" for Single hop, one hop.

El mejor día de "sporadic E" fué el 3 / 11 / 94 esté día en América del Sur hubo eclipse de sol (Por Paraguay 100% sol tapado por lo Luna, en mi ciudad "Pilar (GF05NM) 75% sol tapado por la Luna). Este día fue cuando escuche a la CT3EX, único contacto en esta nueva apertura con esa región (Isla Madeira) hasta el momento.

Para (Tropo) condiciones Troposfericas, por lo general 1 o 2 días antes de la presencia de Tormentas Fuertes, muy común en verano y muy evidente en VHF (144 MHz, 220 MHz, 432, etc.) Para (D) Contactos en forma directa de muy corta distancia.

Estimado Victor Frank disculpe por lo extensión de la carta en Español, me gustaría que me emita su opinión sobre mis comentarios con respecto a los condiciones de propagación y tenga en cuenta" por favor "que yo no soy un experto en el tema; pero, el tema me interesa mucho.

Por esto los 6 metros" La Banda Magica "como le dicen es tan especial, Por lo cambiante de sus condiciones, Por lo inesperado de sus aperturas.

Hoy mientras le estoy escribiendo estas líneas y después de las buenas condiciones de Propagación que tuvimos, Los 6 metros están prácticamente sin propagación.

En lo futuro le seguir enviando informes de propagación. Sin más hasta la próxima y -73- and good DX. Feliz Navidad y un Mejor 1995.

I modified Nestor's letter with accents, and by changing the letter "v" to "b" in certain words (like escrivir) to obtain an English translation with **Power Translator**. **Spanish Assistant** will try to place accents in words it does not recognize, but does not save them to a corrected source file. Some terms, of course, are English and did not translate. Here is our (collective)(and loose) translation:

Dear Victor R. Frank, I thank you [for] your letter and sending the October 1994 Bulletin.

The "Spanish Assistant Translation" is very good, but the "Power Translator Translation" is widely superior to the first because of the good grammar and understanding of text. When I buy my computer, I will no doubt request from you a copy of it or the diskettes.

Excuse me by not having been more extensive with comments in the 50 MHz activity reports. Writing in English is not natural for me, and a letter in Spanish can be greatly spread, for your convenience.

Most of the loggings in the report are contacts by Transequatorial conditions (T.E.). The character of fading, with rapid and continuous distortion in the modulation, great dispersion of the signal and especially by the nocturnal hours, being extended until the first hours of the following day (Especially [observed on] the beacon [signals]); leads me to think of these type of conditions.

For the contacts noted as (E2); example: W7RV, (21:30 GMT) (18:30 LUT), the signals were strong, without distortion, (the signal was strong and toward a lone point of the horizon'; and very notable, when I was receiving W7RV in (DM43) strongly, another LU station 30 km to the south of me (where I live) commented to me: "that he was not hearing anyone."

Conclusion: it is possible that it was multiple hop E or some ionized layer between the E and the F2 or F1.

On the same topic of (E2), another example: October 27, (QTR 23:10 GMT, 20:10 LUT), P43C's signals were strong (similar to the conditions when W7RV was heard). Suddenly the propagation conditions were cut. P43C's signals fell from 9+20 to nothing in few seconds while I was observing them. The same day (QTR 23:48 GMT, 20:48 LUT) I heard P43C again with good signals "but with a fading typical of Transequatorial [propagation]." Was it a change of conditions in the ionized layers? {I would assume both were via F2.}

For (X), generally they are contacts with stations in the zone of silence, in mid afternoon, aiming the antenna toward regions [commonly illuminated] of strong Sporadic E propagation (backscatter reflection signals).

Example = October 15 (See the list {in November bulletin}). We observed on that day via Sporadic E, [and though it] was not noted in the log, an FM Radio (Radio station of Sergipe) of "El Salbador, Brazil" was heard on 50.760 MHz very strong. [That station is] not [supposed to be] on that frequency, [and we believe that] wrong operation of their equipment [is causing a subharmonic of their correct] frequency, 101.520 MHz [to be transmitted].

Excuse Victor the reference of ExE {which was not explained}, for CT3EX is Multiple-hop sporadic E. (E) is for contacts by single hop Sporadic E.

The best day of Sporadic E [during this period, for us in South America] was November 3 during which there was a solar eclipse. In Paraguay the eclipse was total; in my city "Pilar (GF05NM)" the moon covered 75% of the sun. This was the day when we heard CT3EX, my only contact with that region (Madeira Island) in this new opening until then.

For (TR) Tropospheric conditions, generally one or two days before the presence of strong storms, very common in summer, and very evident on VHF (144 MHz, 220 MHz, 432, etc.)

For (D), Direct contacts of very short distance.

Esteemed Victor Frank excuse me for the extension of this letter in Spanish. I would appreciate your opinion on my comments with respect to the conditions of propagation. Please take into account that I am not an expert in the topic; but that the topic interests me greatly.

For this reason, 6 meters, "The Magic Band" as you say, is so special, for its changing conditions, for the unexpectedness of its openings.

Today while I am writing to you these lines and after the good propagation conditions that we had, 6 meters is practically without propagation.

In the future I will continue sending you propagation reports.

Without more until the next and - 73 - and good DX.

Happy Christmas and a Better 1995.

Nestor Eduardo Zucchi, LW5EJU, PO Box 354, 1629 Pilar, BA, REPUBLICA ARGENTINA

Reply: While we do have some shareware and public domain software for the IBM PC that we could send to our subscribers, neither **Power Translator** nor **Spanish Assistant** fall into that category, and we would have to purchase either especially for you. Be aware that **Power Translator** requires 460 kB of free memory, MS-DOS 3.2 or higher, 16 MB of hard disk storage space for program storage, and an additional 14 MB for files created during translation. **Spanish Assistant** will run in 640K with MS-DOS 2.1 or higher and 2.5 MB of hard disk storage space, but is really cramped in 640k.

On the subject of identifying propagation modes, I have difficulty believing that paths of length ~8000 km between northern and southern hemispheres would experience pure Es propagation, which would involve 4 or more hops; and would rather attribute F-layer propagation over at least part of the path. You, however, are the observer.

The eclipse was total only in the southern hemisphere, starting at 1105Z west of Ecuador and ending at 1613Z east of South Africa. At BA it lasted from 1150-1410Z. 6m Es to Brazil was observed 1949-2243Z, and CT3EX was heard at 2139Z. I have difficulty connecting any effect in the ionosphere that would cause 6m propagation to a solar eclipse 6-9 hours previous to that time. Nevertheless, your observation gives pause for thought, and perhaps observers of future eclipses will look for effects delayed this long.

Ground Reflection Gain

I was quite surprised to read in the December issue of **West Coast VHFer** a one page article by Gerd H Schrick, WB8IFM, which started out with: "In various technical publications and even some books you will find casual mention of "ground reflection gain" of about 6 dB. Even some antenna gurus will talk like this. Of course, this is nonsense!"

Really? I could detail a half dozen reasons why, in practice, 6 dB is not obtained, but none of these are the reason put forth by WB8IFM. Mr. Schrick argues that you should add the powers of the direct signal and ground reflection, --> 3 dB.

Let me reassure our readers that when coherent electromagnetic waves of the same frequency are combined that it is the electric fields which are added (vectorially). Thus for the far field of an antenna and its image in a perfect ground, at those elevation angles where the direct ray and the ground reflected ray add in phase the result is a doubling of electric field, a doubling of voltage at the receiving antenna terminals, and a quadrupling of received power (6dB). At those elevation angles where the direct ray and the ground reflected ray are 180° out of phase, a null exists.

Only if you integrate power over the entire hemisphere above ground do you get a 3 dB "gain" figure (over the power radiated into a whole sphere). I can think of only two cases where such an integration is useful. The first is for determining the amount of cosmic noise received by an antenna (distributed and random phase sources {when suitably averaged} are power-adding). The second is for calculating a normalizing constant for determining absolute antenna gains.

October-December DX Reports

The following reports of 50 MHz DX heard and worked are courtesy of G4UPS, SM7AED's ***6-metre info***, JA1VOK's ***World VHF News***, ZL1MQ, ZL4AAA, LW5EJU and ***The World Above 50 MHz***. Reports from 9H3TV are via ***World VHF News***. Reports from SM3EQY area via ***6-metre info***. Apologies to any sources I may have neglected. In the tabular listings which follow, the year (1994) is understood, the first entry is mmddhhii, where mm is the month, dd is the day of the month, hh is the hour UTC, and ii is the minutes after the hour. A + to the right of the time indicates the observation was one of several in a time period and is probably later than reported. The call at the right is that of the observing (and usually reporting) station. Symbols, V=Video Carrier, I=Inband video sidebands, F=FM audio, B=beacon, C=CW, S=SSB, H=heard only, T=Television picture.

News of Africa

ASCENSION IS

```
10142100 ZD8VHF  (-2145)        B 9H3TV
10162010 ZD8VHF  (-2253)        B 9H3TV
10172044 ZD8VHF  (-2242)        B 9H3TV
```

BOTSWANA

```
10141617 A22BW                    9H3TV
```

GAMBIA: Tony Selmes, G4KLF, probably known to 6m buffs as A45ZN or as ZS1D/mm was active on 6m from the Gambia at the end of October into the first week of November. Although Tony reported (to G4UPS) that he spent a large percentage of his time monitoring the 6m band, he only made one QSO (with IT9CHU) on the 6m band using the callsign C56/G0MRF. Tony reports that over the period of nine days, no beacons were heard.

```
10261525 C56/G0MRF 519          C IT9CHU
```

MALAWI

```
10141735 7Q7RM                  H 9H3TV
10141735 7Q7SIX                 B 9H3TV
```

NAMIBIA

```
10141548 V51KC                    9H3TV
```

SOUTH AFRICA: Tony Selmes, C56/G0MRF, heard two South African stations in a long SSB QSO, but he was unable to break them! (Tnx G4UPS).

```
10261555 ZS                     H C56/G0MRF
```

ZIMBABWE

```
10131715 Z21SIX/B               B 9H3TV
10141735 Z21SIX                 B 9H3TV
```

News of Antarctica

U.S. ANTARCTICA: By December 19, Mike, K6MYC, had arrived at McMurdo Sound (78S,166E) on business (which might last a month). His equipment, however, was still in San Diego. Planned were 6m and 2m EME. Will Mike and his luggage get reunited (in the Antarctic)?

AUSTRALIAN ANTARCTICA: VK3OT advises that the VK0IX beacon at Casey Base was due to be reactivated on 50.200 on December 23.

News of Asia (Near East)

CYPRUS

```
10200751 5B4CY                  B 9H3TV
```

ISRAEL

```
10131517 4X1IF                    9H3TV
```

KUWAIT: G4UPS reports: "I had a telephone call from Bob Walsh, 9K2ZR, in Kuwait in early November, informing me that he would be leaving Kuwait sometime in late November and that he had passed along his 6m equipment to Bob, 9K2ZZ, who intended to be very active on the band. I understand that Bob, 9K2ZZ, has the 6m antenna up in the air, and Bob's XYL Lynn will also operate. QSL for 9K2ZZ: via Mr. Raymond H McLure (W8CNL), 674 Crestlyn Dr, North Augusta, SC 29841, U.S.A. and QSL route for 9K2ZR or 9K2USA is via: Mr Andy Anderson (K8EFS), RFD 4 Box 54, Charlotte, MI 48813, U.S.A."

LEBANON

```
10200751 OD5SIX                 B 9H3TV
10220937+OD5SIX       (<1109)   B 9H3TV
```

News of Asia (Far East)

JAPAN

```
11060420 JA7CMO                   ZL2KT
1118XXXX JA3JTG                   ZL3
1118XXXX JD2DWZ                   ZL3
11210611 JA3JTG                   ZL2TPY
```

News of Europe

EUROPE GENERAL

```
11210900 EUR TV EAST 59+ (-1045)  I SM7AED ES
11211000 EUR TV SE 59+ 49.74-.76  V SM7AED ES
```

BELGIUM

```
10181745+ON4CFB  (<1919)          9H3TV
10220937+ON4FZ, ON4CUB (<1109)    9H3TV
10220937+ON5SE         (<1109)    9H3TV
```

CZECH REPUBLIC

```
10181745+OK1MAC  (<1919)          9H3TV
```

DENMARK

```
10181745+OZ2LD, OZ8ABE  (<1919)   9H3TV
10220937+OZ8ABE         (<1109)   9H3TV
```

```
10291411 OZ5AGJ                                SM3EQY AU
10291413 OZ1IEP                                SM3EQY AU
10291419 OZ1JOH                                SM3EQY AU
10291556 OZ8ABE                                SM3EQY AU
10311452 OZ5AGJ                                SM3EQY AU
11010907 OZ7DX 59+ JO66DA & 1001 55 S G4UPS
11030904 OZ7DX 44          & 1000 44 S G4UPS
11031312 OZ7DX  JO66                   SM7AED TROPO
11040903 OZ7DX  57         & 1101 55 S G4UPS
11050904 OZ7DX  57                     S G4UPS
11060901 OZ7DX  55                     H G4UPS
11070904 OZ7DX  44                     S G4UPS
11081002 OZ7DX  57                     S G4UPS
11100903 OZ7DX  55  & 0925 55          C G4UPS
11100913 OZ6VHF 449 IN/OUT (-0930)     B G4UPS
11100913 OZ7IGY 559  (-0930)           B G4UPS
11110904 OZ7DX   55                    S G4UPS
11120903 OZ7DX   57                    S G4UPS
11140910 OZ7DX   57  & 1000 55         S G4UPS
11160907 OZ7DX   55                    S G4UPS
11170904 OZ7DX   55                    S G4UPS
11180838 OZ6VHF 449                    B G4UPS
11180838 OZ7IGY 569                    B G4UPS
11180902 OZ7DX   55 & 0905 59          S G4UPS ES
11190902 OZ7DX   57                    S G4UPS
11190903 OZ5IQ   59 JO65AO KIM        S G4UPS
11200905 OZ7DX   44                    S G4UPS
11220909 OZ7DX   55                    S G4UPS
11230904 OZ7DX   44                    S G4UPS
11240903 OZ7DX   44                    S G4UPS
11250903 OZ7DX   55                    S G4UPS
11261204 OZ8ABE JO55                   SM7AED AU
11261213 OZ1IEP JO65  (AU-1600)        SM7AED AU
11271004 OZ2LD  559  JO54              C G4UPS MS
11280909 OZ7DX   55  & 1000 57         S G4UPS
11290910 OZ7DX   55 & 1000 57          S G4UPS
11300902 OZ7DX   44 & 1000 44          S G4UPS
```

ENGLAND

```
10220937+G1KTZ, G3NVO  (<1109)          9H3TV
10220937+G3ZYY, G4UPS  (<1109)          9H3TV
10220937+G7EXO         (<1109)          9H3TV
10220937+GB3CTC        (<1109)       B  9H3TV
11030550 G3CCH  IO93 & 0903             SM7AED
11030900 G4UPS  IO80                    SM7AED
11040900 G4UPS, G3CCH                C  SM7AED MS
11050901 G4UPS, G3CCH                C  SM7AED MS
11100552 G3CCH &0900 G4UPS/G3CCH        SM7AED MS
11110900 G4UPS, G3CCH                   SM7AED MS
11140900 G4UPS, G3CCH                   SM7AED MS
11150852 G4UPS, G3CCH                   SM7AED MS
11160900 G4UPS, G3CCH                   SM7AED MS
11170554 G3CCH                          SM7AED MS
11180900 G4UPS, G3CCH                   SM7AED MS
11180928 G3MY                           SM7AED ES
11190856 G0JHC    IO83                  SM3EQY ES
11200900 G4UPS, G3CCH                   SM7AED MS
11210900 G4UPS, G3CCH                H  SM7AED
11220900 G4UPS, G3CCH                   SM7AED MS
11240552 G3CCH                          SM7AED MS
11250900 G4UPS, G3CCH                   SM7AED MS
11260900 G4UPS                          SM7AED MS
11270858 G4UPS                          SM7AED MS
11280900 G4UPS, G3CCH                   SM7AED MS
11290852 G4UPS                          SM7AED MS
```

ESTONIA

```
11180903 ES0SIX                      B  SM7AED
11180903 ES6SIX                      B  SM7AED
11261138 ES6QA                       H  SM7AED AU
```

FINLAND

```
10291200 OH2BC                          SM3EQY EME
10291200 OH2BC                          SM3EQY TROP
10311507 OH2TI                          SM3EQY AU
11171100 OH1SIX 559  (-1119)         B  G4UPS
11180903 OH1SIX                      B  SM7AED
11222150 OH6MTC   KP12                  SM3EQY AU
11261045 OH1SIX                      B  SM7AED AU
11280800-OJ7OX     (ON SSB) 50.110 H  SM3EQY
```

FRANCE

```
10201613+F1HAO, F5BYM     (<1820)       9H3TV
10201613+F6GNP (<1820)                  9H3TV
10201613+FX4SIX    (<1820)           B  9H3TV
10220937+F1GCW, F1PUX  (<1109)          9H3TV
10220937+F1LT, F1DLJ  (<1109)           9H3TV
10220937+F5HFN         (<1109)          9H3TV
11180856 F5BYM                          SM7AED MS
```

GERMANY

```
10181745+DL5FCJ  (<1919)                9H3TV
10201613+DL8BC  (<1820)                 9H3TV
10220937+DJ9ON, DL9USA (<1109)          9H3TV
10220937+DL8BC, DL8PM  (<1109)          9H3TV
11181016 DL9LW                          SM3EQY ES
11181021 DL8BC                          SM3EQY ES
11190831 DL9LW    JO52                  SM3EQY ES
```

GREECE

```
10200751 SV1SIX                      B  9H3TV
```

ITALY

```
11031315 I8TUS  JM89                    SM7AED ES
11041101 I2WSG  599/59 (-1115 IN/OUT)   G4UPS
11180850 IK1EGC 559 (WKG G3MY)       H  G4UPS
11180855 IK1EGC                      H  SM7AED MS
11180910 I2WSG  559                  H  G4UPS ES
11201129 IK1EGC                      H  SM7AED MS
```

LATVIA

```
11261131 YL3AG  KO26                    SM7AED AU
```

LUXEMBOURG

```
10201613+LX0SIX    (<1820)           B  9H3TV
10220937+LX0SIX    (<1109)           B  9H3TV
```

NETHERLANDS

```
10101400-PA                          H  9H3TV
10181745+PA2VST         (<1919)         9H3TV
10220937+PA2VST         (<1109)         9H3TV
11181142 PA2VST                         SM7AED ES
11211037 PA0OOS  JO33  599 FM SE     H  SM7AED ESBS
```

NORWAY

```
11061501 LA8BP  JO59 (NOT VY STRONG)    SM7AED AU
11261135 LA8BP  JO49                    SM7AED AU
```

POLAND

```
10181745+SP3OCC, SP3UCA (<1919)         9H3TV
10181745+SP4CHY, SP6VWM (<1919)         9H3TV
10181745+SR6SIX         (<1919)      B  9H3TV
10220937+SP3RCA         (<1109)         9H3TV
10220937+SR6SIX         (<1109)      B  9H3TV
10291435 SP3UCA                         SM3EQY AU+AUE
11190911 SP6RLA   JO81                  SM3EQY ES
```

PORTUGAL

```
10201613 CT1BGE, CT1DMK (<1820)         9H3TV
10201613+CT0WW     (<1820)           B  9H3TV
```

RUSSIAN FED.

```
11091445 UA-TV  (-1700)      49.750 V SM7AED AU
```

SCOTLAND

```
10291517 GM4DMA                         SM3EQY AU
10302203 GM4ISM                         SM3EQY AUE
11171120 GB3LER 569  (-1126)         B  G4UPS
11180850 GB3RMK 559                  B  G4UPS
11180902 GB3LER 599                  B  G4UPS ES
11261045 GB3LER                      B  SM7AED AU
```

SERBIA

```
10220937+YU7AS          (<1109)         9H3TV
11041120 4N1SIX 559 PEAK (-1127)     B  G4UPS
```

SICILY

```
10101400 IT9CHU, IT9NAN (-1416)         9H3TV
10101400+IT9UUT  (-1416)                9H3TV
10210945 IT9CHU                         9H3TV
10261525 IT9CHU 519                  C  C56/G0MRF
```

SPAIN: ***6-metre info*** relays information from Jorge, EA2LU, that permission for 6m operation in Spain expired

on July 27. All stations were required to apply for new permits, with a closing date of November 29. Any class "A" amateur could apply and those who did not previously hold permits would get priority for the limited number to be issued.

```
10201613+EH1DVY, EH4CGN/1 (<1820)      9H3TV
```

SWEDEN: SM3EQY noted (in ***Six metre info*** working the following stations on 6m on November 22 (1800-2040Z) during the Scandaanavian activity contest via tropo: SM5VCK JO88, SM3FFT JP80, SM5PAG JO89, SM4POB JO70, SM3JGG JP71, SM5QA JO89, and SM4BRD JO70.

```
10181745+SM7FJE          (<1919)        9H3TV
10220937+SM7FJE          (<1109)        9H3TV
10291416 SM7AED                         SM3EQY AU+AUE
10291428 SM5VCK                         SM3EQY AU
10291601 SM5NVF                         SM3EQY AU
10292307 SM4POB                         SM3EQY TROP
10311436 SM5VCK                         SM3EQY AU
11010900 SM7AED 559                   C G4UPS
1102     SM5VCK                         SM3EQY AU
11020901 SM7AED 559                   C G4UPS
11030900 SM7AED 559                   C G4UPS
11040901 SM7AED 559                   C G4UPS
11041922 SM6DWF                         SM3EQY AUE
11050901 SM7AED 559, 0904 59+           G4UPS
11061300 SL0ZG                          SM3EQY AU
11070900 SM7AED 559                   C G4UPS
11090900 SM7AED 559                   C G4UPS
11100900 SM7AED 559                   C G4UPS
11110900 SM7AED 559                   C G4UPS
11111941 SM5VCK                         SM3EQY AU
11140901 SM7AED 449                   C G4UPS
11150852 SM7AED 579                   C G4UPS
11160901 SM7AED 559                   C G4UPS
11170638 SM3BIU 599  JP73             C SM7AED MS
11180901 SM7AED 579                   C G4UPS ES
11181129 SM3EQY                         SM7AED ES
11181130 SM7AED                         SM3EQY ES
11200902 SM7AED 449                   C G4UPS
11200903 SM7AED 559                   C G4UPS
11201345 SM3EQY                       H SM7AED AU
11220901 SM7AED 559                   C G4UPS
11230902 SM7AED 559                   C G4UPS
11250901 SM7AED 559                   C G4UPS
11260901 SM7AED 559                   C G4UPS
11261158 SM3EQY      JP81               SM7AED AU
11280900 SM7AED 559                   C G4UPS
11290852 SM7AED 599                   C G4UPS
```

News of North America

CANADA

```
10271931 VE7FEI CN88 &2015,2040        W0TMK
```

COSTA RICA

```
11140000 TI2NA  S3          50.0795 B LW5EJU TE
11180050 TI2NA  S1 (-0250)  50.0795 B LW5EJU TE
```

DOMINICAN REP

```
11140000 HI0VHF S2           50.008 B LW5EJU TE
11180015 HI0VHF              50.008 B LW5EJU TE
11252330 HI0VHF S1           50.008 B LW5EJU TE
```

MARTINIQUE

```
11200010 FM5WD 59+10 FK94    50.115 S LW5EJU TE
```

MEXICO: Received a letter (in English) from XE1AVM (ex XF4CI) listing a number of 6m contacts he had made to W7 & W6 November 21 between 0013-0040. He reported the band was open until 0140, and he continued calling, but nobody answered him. He was gone the following day, but had a report from a friend in Guadalajara that 6m was open then as well. XE1AVM's equipment is a FT-690RII to an amplifier with 50W output to a 6 element homebrew beam. His QSL information is: Ismael Mtz. Vizcarra, A. Postal 440, C.P. 28200, Manzanillo, Col. MEXICO.

Received a letter from Bernardo, XE2HWB: "Envio mi reporte sobre seis metros durante los concursos, no mas propagación durante agosto, octubre y hasta 19 de noviembre. Hoy trabaje a los 1851 UTC a KE6FKA y a las 1859 UTC a W6YLZ, escuche a KE6GAS, N6XQ y a XE2UZL/B. Gracias por el envio de las copias de "The 50 MHz Bulletin". Hasta Pronto."

Translated loosely: "I am sending my report about six meters during the contests. {I observed} no more propagation during August, October, and until November 19. Today at 1851 UTC I worked KE6FKA and at 1859 UTC W6YLZ. I heard KE6GAS, N6XQ, and XE2UZL/B. Thank you for sending the copies of "The 50 MHz Bulletin". Until Soon.

L. Bernardo Gonzaldz Maldonado, XE2HWB, P.O. Box 674, La Paz, Baja California Sur, C.P. 2300, MEXICO."

```
10090158 XE2LQB  DL98                   AD4TJ FM08
11191900-XE2UZL                       B XE2HWB
11210013 XE2UZL   (-0140)             B XE1AVM
```

PUERTO RICO

```
11132300 KP4SQ  S1   PEDRO   50.110 S LW5EJU TE
11142310 KP4EOR S2   DAVID   50.110 S LW5EJU TE
```

ST KITTS

```
11252330 V44K  S3 (-0030)    50.055 B LW5EJU TE
11292330 V44K S1 (-2355) FK87  .055 B LW5EJU TE
12010000 V44K   S1           50.055 B LW5EJU TE
```

United States, W1,2,3,4

```
10250015+W4 NC & TN (>0100)             W1
12070000-N3JXR                        H CO2OJ
12070000-WA4AJP                       H CO2OJ
```

United States, W5

```
10090015-W5 TX & LA                     AD4TJ FM08
10090045+W5 TX & LA (-0115)             W0MTK
10250130 W5 TX EM00, LA EM40 (-0230)    N6PYI DM05
10310300+W5 AR  (<0500)                 WE7H DN41
12080230+W5  NM  DM84,DM65 (-0430)      WB9AJZ/6
12170040+KB5QKS, KB5YUA EM44 (-0050)    CO2OJ
```

United States, W6

```
09110115 KK6OH  DM07                    XE2HWB
09110116 KB6NAN CM87                    XE2HWB
09110116 W6SJR  DM14                    XE2HWB
09110117 K6QXY  DM88                    XE2HWB
09110117 W6/WB9AJZ CM87                 XE2HWB
09110118 KC6WLC DM04, K6LMN             XE2HWB
09110119 W6AMT  CM96                    XE2HWB
09110121 KB6JFL DM05, KD6NRU CM94       XE2HWB
09110121 KD6TBE DM04, K6ZE  DM13        XE2HWB
09110125 KO6ET  DM12                    XE2HWB
09110130 KO6AZ  DM04, N6QOA  DM04       XE2HWB
09110131 K6VDP  DM13, WB6JQV CM87       XE2HWB
09110133 WB6FCS CM14, N6RMJ  DM14       XE2HWB
09110136+WB6VIN DM05, K0BGL  DM04       XE2HWB
09110149 N6SNX  DM13, KJ6GR  DM03       XE2HWB
09110155 WH6PH  DM04, N6RPM  DM04       XE2HWB
09110158 W6/N0KN DM03, WB2OH DM03       XE2HWB
09110159 W6/WB2OH  DM03, KA1EYY DM04    XE2HWB
09110201 W6/KA1EYY DM04, WA6VQZ CM95    XE2HWB
09110210 KC6RPW CM95                    XE2HWB
10310300+W6 CA  (<0500)                 WE7H DN41
10310300+W6 S CA (<0500)                KB7WW OR
11191851 KE6FKA                         XE2HWB
11191859 W6YLZ                          XE2HWB
11191900-KE6GAS, N6XQ                 H XE2HWB
11210036 KD6TBE  DM04, CA, KIP        S XE1AVM
11210040 KE6FKA  DM04, CA, RHONA      S XE1AVM
```

United States, W7

```
09110110 W7TVF  DM27                    XE2HWB
09110227 N7FP   DM09                    XE2HWB
10271943 KA7INA CN96                    W0TMK
11210013 WB7OHF  DM42, AZ, RAY        S XE1AVM
11210014 W7RV    DM43, AZ, TOMMY      S XE1AVM
11210015 WA7JTM  DM33, AZ, STEVE      S XE1AVM
```

```
11210016 K7AQ    DM33, AZ, CHARLEY  S XE1AVM
11210016 W7IXA   DM43, AZ           S XE1AVM
12080230+NC7K DM09        (-0430)    DM33
12080230+W7  AZ  DM54,33,42 (-0430)  WB9AJZ/6
```

United States, W8, W9, W0

```
12070000-KB8KRY, EN91                CO2OJ
12080230+N0LL KS  EM09   (-0430)     WB9AJZ/6
12080230+W0  COLO DM78,DM89 (-0430)  WB9AJZ/6
12170040 N8YRV   EN70                CO2OJ
12170040+N9GJG   EM57  (-0050)       CO2OJ
```

News of Oceania

AUSTRALIA-VK1

```
12031005 VK1GLS                      ZL3NE
```

AUSTRALIA-VK2

```
10110049 VK2  (N)(-0155) MUF  106.9 F ZL4AAA ES
10300122 VK2ZXC                      ZL2TPY ES
11060119 VK2AIS, 0125 VK2KF          ZL2AGI ES
11070001 VK2FLI                      ZL3NE/1 ES
11070040 VK2AIS                      ZL1MQ
11070120 VK2KF                       ZL3NE
11070140 VK2                         ZL4AAA ES
11070145 VK2AIF                      ZL3NE
11130040 VK2     (-0055)             ZL4AAA ES
11210050 VK2YDC                      ZL3NE
11220825 VK2GLS                      ZL3NE
11220851 VK2GLS, 0852 VK2FLI         ZL3NE
11270051 VK2MZ                       ZL4AAA ES
11280120 VK2GLS                      ZL3NE
12010005 VK2YDC                      ZL3NE
12020230 VK2GLS                      ZL3NE
12030210 VK2BRG                      ZL3NE
12030755 VK2GLS                      ZL3NE
12030925 VK2GLS, 0930 VK2ANS         ZL3NE
12032310 VK2YLO                      ZL3NE
12040010 VK2ANS, 0018 VK2YLO         ZL3NE
12040055 VK2ANS, 0058 VK2ZXC         ZL3NE
```

AUSTRALIA-VK3

```
11021437 VK3DUT              50.130 H JA3GR
11060006 VK3DUT                     ZL2AGI ES
11070030 VK3EMA                     ZL3NE  ES
11070200 VK3OT                      ZL4AAA ES
11070930 VK3OT                      ZL3NE
11071541 VK3OT          CW   50.110 H JA3GR
11130849 VK3OT   (-1009)            ZL4AAA ES
11130950 VK3DUT                     ZL2AQR/3
11250910 VK3OT                      ZL4AAA ES
12040135 VK3UDQ                     ZL1THQ
12040200 VK3BYN, 0208 VK3DUQ        ZL3NE
12040220 VK3DUQ                51   ZL1AKW
12040220 VK3TYF, 0240 VK3DUT        ZL3NE
```

AUSTRALIA-VK4

```
10102325 VK4RGG  (-0207)            B ZL4AAA ES
10110049 VK4  (S)(-0155) MUF  106.9 F ZL4AAA ES
10121056 VK4RGG  (-1121)            B ZL4AAA ES
11021333 VK4APG              50.115 H JA3GR
11021340 VK4PU, 1344 VK4AFL  50.140 S JA3GR
11031320 VK4TVI              50.110 S JA3GR
11031331 VK4TVI              50.110 S JA1VOK
11031333 VK4ZX               50.125 S JA3GR
11031339 VK4ABP              52.347 B JA1VOK
11052347 VK4RGG  (-0018)            B ZL4AAA ES
11062225 VK4RGG  (-2240)            B ZL4AAA ES
11070015 VK4RGG  (-0129)            B ZL4AAA ES
11070045 VK4AIF                     ZL3NE
11101006 VK4RGG  (-1035)            B ZL4AAA ES
11121042 VK4RGG  (-1045)            B ZL4AAA ES
11122328 VK4RGG  (-0233)            B ZL4AAA ES
11130939 VK4RGG  (-1131)            B ZL4AAA ES
11130952 VK4  (S)(-1005) MUF   93.3 F ZL4AAA ES
11140745 VK4RGG  (-1040) IN & OUT   B ZL4AAA ES
11151007 VK4RGG  (-1040)            B ZL4AAA ES
11170601 VK4RGG  (-0715)            B ZL4AAA ES
11171101 VK4RGG  (-1132)            B ZL4AAA ES
11172042 VK4RGG  (-2050)            B ZL4AAA ES
11172222 VK4RGG  (-2257)            B ZL4AAA ES
11181030 VK4RGG  (-1045)            B ZL4AAA ES
11182229 VK4RGG  (-2358)            B ZL4AAA ES
11190027 VK4RGG  (-0110)            B ZL4AAA ES
11201004 VK4RGG  (-1009)            B ZL4AAA ES
11202325 VK4  (S)(-2350)  MUF 92.5  F ZL4AAA ES
11202328 VK4RGG  (-0619)            B ZL4AAA ES
11210110 VK4GPS                     ZL3NE
11210400 VK4AFL                     ZL3NE
11220630 VK4RGG  (-1045)            B ZL4AAA ES
11220830 VK4AFL, 0835 BY ZL3NE      ZL2TPY
11221000 VK4PU                      ZL3NE
11232222 VK4RGG  (-0040)            B ZL4AAA ES
11232304 VK4 (MID)(-2315) MUF 101.1 F ZL4AAA ES
11240703 VK4RGG  (-1032)            B ZL4AAA ES
11240917 VK4 (S) (-1011)  MUF  89.3 F ZL4AAA ES
11242125 VK4RGG  (-2145)            B ZL4AAA ES
11250821 VK4RGG  (-1050)            B ZL4AAA ES
11262340 VK4JH, 2344 VK4ZJR         ZL2KT
11270045 VK4JH                      ZL1THQ
12010010 VK4AFL, 0110 VK4PU         ZL3NE
12030745 VK4AFL                     ZL3NE
12030800 VK4AYR, 0801 VK4YAN        ZL3NE
12030807 VK4PU                      ZL3NE
12031015 VK4YAR                     ZL3NE
12040008 VK4PU                      ZL3NE
12080010 VK4AFL, 0018 BY ZL1MQ      ZL3NE
12080044 VK4APG, 0046 BY ZL3NE 144.1  ZL4AAA TR
12080047 VK4ZAA, P047 BY ZL3NE 144.1  ZL4AAA TR
```

AUSTRALIA-VK5

```
11060222 VK5BC                      ZL2AGI ES
11070105 VK5BC                      ZL3NE
11070140 VK5                        ZL4AAA ES
11070150 VK5BC                      ZL1MQ
11250910 VK5                        ZL4AAA ES
```

AUSTRALIA-VK6

```
12040832 VK6WD                      ZL2KT EE
12040846 VK6RO                      ZL2KT EE
12040847 VK6JJ                      ZL2KT EE
12040852 VK6ACY                     ZL2KT EE
12040915 VK6ACY                     ZL1THQ EE
12040917 VK6ZWZ, & 0940             ZL2KT EE
```

AUSTRALIA-VK7

```
1124XXXX VK7ZMS                     ZL2AQR
```

KIRABATI: JA1VOK's ***World VHF News*** in **FIVE NINE** indicates Christmas Is. 50.110 MHz activity from December 27 to January 2 by T32X (JA4GXS), T32A (JA5EXW), and T32J (JR5JAG).

NEW CALEDONIA

```
11262258 FK8     (-2320)  MUF  95.0 F ZL4AAA ES
```

NEW ZEALAND

```
11061321 ZL2KT               50.110 S JA5CMO
11070002 ZL2AGI                     ZL3NE
11070010 ZL3TIC, 0015 ZL3JT         ZL3NE/1
11070034 ZL3TIC                     ZL1MQ
11070117 ZL3NW                      ZL1MQ
11070122 ZL3TIC                     ZL3NE
11070140 ZL3                        ZL4AAA ES
11070210 ZL3NW                      ZL3NE
11070220 ZL3TIC                     ZL3NE
11071147 ZL2UJH              50.110 S JA3JTG
11071149 ZL3TIC              50.110 H JA3GR
11071152 ZL3TIC, ZL3AAU      50.110 S JA3JTG
11071157 ZL4LV               50.110 H JA3GR
11071159 ZL4LV               50.110 S JA3JTG
11130849 ZL4     (-1009)            ZL4AAA ES
11221454 ZL3TIC, ZL3ADT      50.110 S JA3GR
11221511 ZL2TPY              50.110 S JA3JTG
11250720 ZL3MHF  (-0840)            B ZL4AAA ES
11250850 ZL4TBN, 0855 BY ZL3NE      ZL2AGI
11250905 ZL3TIC, 0910 ZL3TIB        ZL3NE
11250915 ZL3ADT                     ZL3NE
11290042 ZL4TBN                     ZL1MQ
11290052 ZL3TLG, 0057 ZL4LV         ZL1MQ
11300005 ZL2AQR/3                51 ZL1AKW
11300201 ZL3AAU                  51 ZL1AKW
```

WESTERN SAMOA: JA1VOK's ***World VHF News*** in **FIVE NINE** indicates that 5W1MM did not make any 50 MHz QSOs (at least not through November).

News of South America

ARGENTINA

```
10082037 LU8MBL 59 MENDOZA    50.110 S PY2CDS
10082048 LU8YYO 52 NEUQUEN    50.033 B PY2CDS
10082132 LW2DDS 59 BAIA BLANCA .115 S PY2CDS
10082215 LU1MA  52 MENDOZA    50.086 B PY2CDS
10082227 LU COMMERICAL 59     49.220 F PY2CDS
11091540 LU3AHO S5 EDUARDO    51.600 F LW5EJU D
11091540 LU4DAJ S5 RAUL       51.600 F LW5EJU D
11092137 LU6WN  59+10 RAFAEL 50.110 S LW5EJU E
11092200 LW6EUQ S1 RUBEN GF05  .110 S LW5EJU TR
11092240 LU5JAU S1-3 DANIEL   50.110 S LW5EJU TR
11101644 LU5JAU 59+10         50.110 S LW5EJU TR
11102246 LU5JAU 59+10         50.120 S LW5EJU TR
11111730 LU5JAU 59+10         50.120 S LW5EJU TR
11112230 LU5JAU 59+10         50.110 S LW5EJU TR
11112230 LU8JOZ S1 RAMON      50.110 S LW5EJU TR
11172220 LU5JAU S1 DANIEL     50.110 S LW5EJU TR
11181329 LU7DYI S3            51.500 F LW5EJU D
11191716 LU5JAU S5 DANIEL     50.110 S LW5EJU TR
11201328 LU7DIV, 1443 LU3AHO 51.400 F LW5EJU D
11201328 LU8EWD, LU8DCH       51.400 F LW5EJU D
11201535 LU3CGG, LU4DHD       51.500 F LW5EJU D
11201600 LU7DYI S1 OSCAR      51.500 F LW5EJU D
11242200 LU3EGG, LU7DIV       51.500 F LW5EJU D
11242219+LU8EWD, LU7EX  S3    51.500 F LW5EJU D
11242300 LU8ALO, LU3AHO       51.500 F LW5EJU D
12021650 LU7FA  S3-5 FF96BV   50.110 S LW5EJU TR
12022045 LU7FA  S5-7 RICARDO 50.110 S LW5EJU TR
```

ARUBA

```
11140040 P43C   59+10 FK42XM 50.110 S LW5EJU TE
11200040 P43C   59  OLE       50.110 S LW5EJU TE
11240030 P43C   S5-7          50.115 S LW5EJU TE
```

BRAZIL

```
11082140 PY5CC  S5            50.110 S LW5EJU E
11252349 PS7KM  S1 KARL HI24 50.110 S LW5EJU E/F
```

FRENCH GUIANA

```
11082345 FY7THF S3          50.0375 B LW5EJU TE
11120100 FY7THF S3-5        50.0375 B LW5EJU TE
11180050 FY7THF S5 (-0350)  50.0375 B LW5EJU TE
11200015 FY7THF S5-7         50.037 B LW5EJU TE
11252330 FY7THF S7          50.0375 B LW5EJU TE
11292330 FY7THF              50.037 B LW5EJU TE
12010115 FY7THF S1           50.037 B LW5EJU TE
```

VENEZUELA

```
11072030 YV4AB  S1-3          50.025 B LW5EJU TE
11082345 YV4AB  S5-7          50.025 B LW5EJU TE
11120100 YV4AB  S3-5          50.025 B LW5EJU TE
11140000 YV4AB  S3            50.025 B LW5EJU TE
11142321 YV4AB  S2            50.025 B LW5EJU TE
11180000 YV4AB  S5-7          50.025 B LW5EJU TE
11182351 YV4AB  S5-7          50.025 B LW5EJU TE
11200015 YV4AB  57            50.025 B LW5EJU TE
11240000 YV4AB  S3-5          50.025 B LW5EJU TE
11252330 YV4AB  S9            50.025 B LW5EJU TE
12010000 YV4AB  S2            50.025 B LW5EJU TE
12020000 YV4AB  S1-2          50.025 B LW5EJU TE
```

EME News

SM3EQY reports hearing W6JKV (and OH2BC) on 50 MHz EME October 29 at 1220Z. W6JKV reports hearing JA1VOK on 50 MHz EME December 25 & 26.

As of press time (Dec 27), K6MYC had worked 4 stations on 2m EME (with 150W) from McMurdo Sound, but was still awaiting his kW amplifiers for 6 & 2 meters.

A packet message from the Toronto VHF Society ARC included the following: "The Toronto VHF Society is already planning for the next foray into Algonquin Park (Grid FN05xw) during the Spring of 1995. Testing of new feed antennas will be done, but the primary focus will be to again bring EME opportunities to non EME ers worldwide, and to test and evaluate equipment and techniques on the 50 MHz and 10 GHz bands."

EME stations worldwide are invited to participate in the second Italian EME contest, which runs for 48 hours from 0000 UTC January 21 to 2400 UTC January 22. Only CW or SSB contacts via EME on 50, 144, 432, 1296, 2304, 5750, and 10450 MHz count. Log standard signal reports. Score 51 points for each EME contact with an Italian station, 10 points for all other EME contacts. Total each band separately. Entry categories for 144 and 432 MHz are determined by the number of Yagi elements or diameter of a dish antenna in meters.

{Entry categories may be found on page 109 of January 1995 QST. There is only one category for 50 MHz.}

Send logs to Mario Alberti, I1ANP, Via Priv. Maralunga 12, La Spezia, ITALY, 19126.

Beacon News

Mexico: Received a letter from Bernardo, XE2HWB, in which he writes: "Ahora yo tengo dos beacons, uno en 50.008 MHz y uno nuevo en 144.180 MHz con 5 Watts con antena de 6 elementos hacia el norte. Transmite 24 segundos "HOLA DE XE2HWB/B DL44 LA PAZ" y esta fuera 36 segundos, durante 24 horas, espero muy pronto tener otro en 28 MHz (28.170-28.190)."

Translated loosely: "Now I have two beacons, one on 50.008 MHz and a new one on 144.180 MHz with 5 Watts to a 6 element antenna pointed north. They transmit 24 seconds "HOLA {hello} DE XE2HWB/B DL44 LA PAZ" and then off 36 seconds, 24 hours a day. I hope very soon to have another on 28 MHz (28.170-28.190).

SMIRK

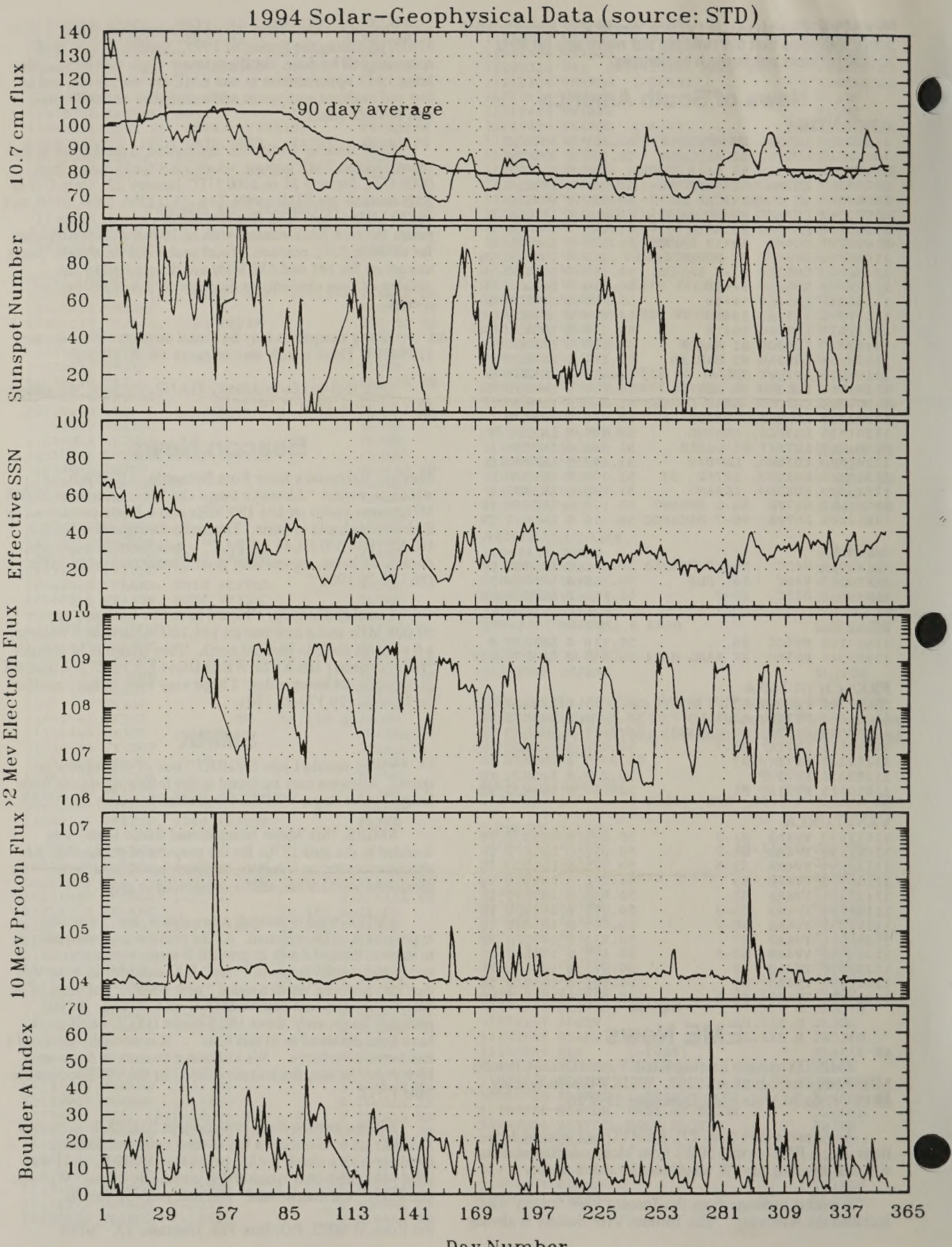
"Why should I join SMIRK?" one of our readers inquired. Answers may be found in the following quotes from letters by Pat Rose, W5OZI, the present secretary of SMIRK.

SMIRK {Six Meter International Radio Klub} was founded in the mid-1970s for the purpose of promoting amateur activity on 6 meters, and now has almost 5800 members, world-wide, and is continuing to grow.

SMIRK used to publish a newsletter, but it was very expensive to print and mail. At the present time our policy is to use our limited funds to provide 6 meter equipment to needy and worthy hams in "rare" DX countries in order that they can give that much needed "new country" to those of us who are chasing that elusive DXCC on 6 meters. As you probably know, only about 160 6 meter DXCC certificates have been obtained as of this time . . . it is a worthy goal and a real honor to achieve. We also run a contest on 6 meters each June. In fact, the tentative dates for the 1995 contest are June 17-18.

All you need to do in order to join SMIRK is to work 6 SMIRKs on 6. Send me a list of their calls and SMIRK numbers with a check for $6, payable to SMIRK, and I will send your numbered membership certificate to you. We hope you enjoy "the magic band" and that you will join us.

Pat Rose, W5OZI, P.O. Box 393, Junction, TX 76849


1994 Solar-Geophysical Data (source: STD)
10.7 cm flux
90 day average
Sunspot Number
Effective SSN
>2 Mev Electron Flux
10 Mev Proton Flux
Boulder A Index
Day Number
1
29
57
85
113
141
169
197
225
253
281
309
337
365